

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method of processing an image for display, said method comprising:

mapping a sub-pixel area of a display to a region of said image, said sub-pixel area operable to display a first color of a plurality of colors;

~~based on intensity of said first color for all pixels comprising said first color in said region of said image, based on an unweighted average of said first color for all pixels in said region of said image,~~ calculating an intensity value for said first color to be displayed in said sub-pixel area of said display, wherein said region comprises an intensity value for each of said plurality of colors ~~for each pixel included therein;~~ and

repeating the mapping and calculating for additional sub-pixels areas of said display corresponding to additional regions of said image, mapping each sub-pixel area to its own region, wherein said image is processed.

2. (Currently Amended) A method as described in Claim 1, further comprising:

displaying said processed image on said display, said display providing for control over individual sub-pixels, ~~wherein each area of said display corresponds to a sub-pixel operable to display a color.~~

3. (Currently Amended) A method as described in Claim 1 wherein the calculating comprises:

averaging the intensity value of said first color over a plurality of regions neighboring said region of said image, wherein each of said sub-pixels ~~areas~~ maps to its own plurality of regions.

4. (Previously Presented) A method as described in Claim 3, wherein the calculating comprises:

based on the intensity of said first color in said plurality of regions of said image, calculating an intensity value for said first color;

calculating an error for said first color; and

propagating said error for said first color for processing further regions of said image.

5. (Currently Amended) A method as described in Claim 4, wherein the calculating further comprises using in the intensity value calculating an error that was propagated when processing another ~~area~~ sub-pixel for said first color.

6. (Previously Presented) A method as described in Claim 1, wherein the calculating comprises:

based on the intensity of said first color in said region of said image, calculating an uncompensated intensity value for said first color;

calculating an error for each of the rest of said plurality of colors within said region,

storing said errors for said rest of said colors for processing further regions of said image; and

calculating a compensated intensity value for said area, based on said uncompensated intensity value and errors which were calculated for said first color when processing other image regions.

7. (Currently Amended) A method as described in Claim 1, wherein the calculating comprises using only information regarding the intensity of said first color to calculate the intensity of color to be displayed in said sub-pixel area.

8. (Previously Presented) A method as described in Claim 1, further comprising:

filtering said image prior to calculating the intensity value for said first value to be displayed, thereby producing a filtered image having a similar color scheme as said display.

9. (Previously Presented) A method as described in Claim 1, wherein said output display has sub-pixel control.

10. (Currently Amended) In a system having a processor coupled to a bus, a display coupled to said bus, and a computer readable medium coupled to said bus, said computer readable medium having stored therein a computer program that when executed by said processor causes said computer system to implement a method for processing an image, said method comprising:

accessing said image;

based on intensity of a first color in a region of said image, calculating an intensity value for said first color to be displayed on a sub-pixel of said display, ~~based on an unweighted average of the first color intensity for all sub-pixels in the region of the image~~, said sub-pixel corresponding to said region of said image based on a pre-determined mapping, said pre-determined mapping providing a unique region of said image for said sub-pixel, wherein said display comprises a plurality of colors;

repeating the calculating for additional regions of said image and corresponding additional sub-pixels of said display to process additional colors of said plurality of colors; and

causing said sub-pixels to display said colors, based on said calculated intensities.

11. (Original) The system of Claim 10 wherein said display screen comprises a plurality of sub-pixels per pixel, said pixel comprising all of said plurality of colors, further wherein each color within said pixel is based on a different region of said image.

12. (Original) The system of Claim 11 wherein each sub-pixel is individually controllable.

13. (Previously Presented) The system of Claim 11 wherein the calculating of said method comprises:

averaging the intensity value of said first color over a plurality of regions neighboring said region of said image, wherein each of said sub-pixels maps to its own plurality of regions.

14. (Previously Presented) The system of Claim 11, wherein the calculating of said method comprises:

based on the intensity of said first color in a plurality of regions of said image, calculating an intensity value for said first color;

calculating an error for said first color; and

propagating said error for said first color for processing further regions of said image.

15. (Previously Presented) The system of Claim 14, wherein the calculating of said method further comprises using in the intensity value calculating an error that was propagated when calculating an intensity value for another sub-pixel for said first color.

16. (Currently Amended) A method of processing an image for display on a display having sub-pixel display capability, said method comprising:

mapping a plurality of sub-pixels of said display to corresponding regions of said image, each sub-pixel being mapped to a unique region;

accessing said image, said image sampled at a higher spatial resolution than the spatial resolution of said display;

for each sub-pixel, calculating an intensity value for said sub-pixel using only intensity information for a first color from said corresponding

~~region by employing an unweighted average of intensities for the first color based on intensities for the first color for multiple sub-pixels in said corresponding region;~~

~~repeating the calculating for each sub-pixel for other colors from said corresponding region, said repeating performed to calculate additional intensities associated with said other colors; and~~

rendering said image on said display, based on said calculated intensities.

17. (Currently Amended) A method as described in Claim 16 wherein the calculating comprises:

averaging the intensity value of said first color over a plurality of regions neighboring said region of said image, wherein each of said sub-pixels areas maps to its own plurality of regions.

18. (Previously Presented) A method as described in Claim 16, wherein the calculating comprises:

based on the intensity of said first color in said region of said image, calculating an uncompensated intensity value for said first color;

calculating an error for each of the rest of said plurality of colors within said region,

storing said errors for said rest of said colors for processing further regions of said image; and

calculating a compensated intensity value for said area, based on said uncompensated intensity value and errors which were calculated for said first color when processing other image regions.

19. (Previously Presented) A method as described in Claim 18, wherein the compensated intensity value calculating comprises calculating said errors for said first region when processing a region for which uncompensated values are calculated for other colors of said plurality.

20. (Previously Presented) A method as described in Claim 16, further comprising:

filtering said image prior to calculating the intensity value for said sub-pixel, thereby producing a filtered image having a similar color scheme as said display.

21. (Previously Presented) A method as described in Claim 16, wherein the calculating comprises:

for each sub-pixel of said display, mapping said sub-pixel to a region of said image, wherein each sub-pixel corresponds to a single color and said region of said image comprises intensity information for said plurality of colors.

22. (Previously Presented) A method as described in Claim 16, wherein the calculating comprises:

based on the intensity of said first color in said plurality of regions of said image, calculating an intensity value for said first color;
calculating an error for said first color; and
propagating said error for said first color for processing further regions of said image.

23. (Previously Presented) A method as described in Claim 22, wherein the calculating further comprises using in the intensity value calculating an error that was propagated when processing another area for said first color.